

SECTION 129
DUCTILE IRON PIPE

129.1 GENERAL

Ductile iron pipe is acceptable for use in the installation of water lines for sizes 4 inches to 64 inches. Ductile iron pipe shall only be used for sanitary sewers where specifically required by the plans or authorized by the ENGINEER. The size and thickness class for ductile iron pipe shall be as specified herein or on the plans.

129.2 REFERENCES

129.2.1 American Society for Testing and Materials (Latest Editions)(ASTM)

A 674 Practice for Polyethylene Encasement for Ductile Iron Pipe for Water and Other Liquids

A 746 Specifications for Ductile Iron Gravity Sewer Pipe

129.2.2 American Water Works Association (Latest Editions)(AWWA)

C 104 American National Standard for Cement Mortar Lining for Ductile-Iron Pipe and Fittings for Water

C 105 American National Standard for Polyethylene Encasement for Ductile Iron Piping for Water and Other Liquids

C 111 American National Standard for Rubber-Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings

C 115 American National Standard for Flanged Ductile-Iron Pipe with Threaded Flanges

C 150 American National Standard for the Thickness Design of Ductile-Iron Pipe

C 151 American National Standard for Ductile-iron Pipe, Centrifugally Cast, for Water or Other Liquids

C 600 Installation of Ductile-iron Water Mains and Their Appurtenances

129.2.3 This Publication

Section 130 Gray Iron and Ductile Iron Fittings

Section 801 Installation of Water Transmission, Collector and Distribution Lines

Section 900 Sanitary and Storm Sewer Facilities

129.3.1 The ENGINEER shall determine the required class of ductile iron pipe based on the laying condition, depth of cover and loading factors in accordance with AWWA C 150 but in no case shall the ductile iron

pipe be less than pressure class 150. If a pressure class higher than 150 is required, it will be specified on the plans or in the Supplemental Technical Specifications.

129.3.2 Ductile iron pipe shall be manufactured in accordance with AWWA C 151 and shall be cement mortar lined with a bituminous seal coat in accordance with AWWA C 104.

129.3.3 Ductile iron pipe joints for underground installations shall be rubber-gasketed push-on, or mechanical type in accordance with AWWA C 111.

129.3.4 Where specified on the construction drawings, the ductile iron flanged joint pipe shall meet the requirements in AWWA C 115. Flanged joints shall only be utilized in above ground installations or within structures, such as: valve pits or vaults.

129.3.5 Ductile iron pipe connections to fittings shall be as specified in Section 130.

129.3.6 Ductile iron pipe shall be installed in accordance with AWWA C 600 and Section 801. When specified or authorized by the ENGINEER, polyethylene encasement shall be installed and shall conform to AWWA C 105.

129.4 DUCTILE IRON SANITARY SEWER PIPE

129.4.1 Ductile iron pipe, utilized for sanitary sewer installation, shall be asphaltic lined in accordance with ASTM A 746, unless otherwise specified on the plans or in the Supplemental Technical Specifications.

129.4.2 All pipes shall be a minimum of pressure class 150.

129.4.3 When specified or authorized by the ENGINEER, polyethylene encasement shall be installed in accordance with ASTM A 674.

129.5 MEASUREMENT AND PAYMENT

Ductile Iron pipe with or without polyethylene encasement for both pressure and gravity flow shall be measured and paid for at the contract unit price as specified in Section 801 and 900 and/or as defined in the Bid Proposal.